WHAT IS CLAIMED IS:

1. A lamp inverter starting circuit comprising:

a switching portion that converts a bus voltage signal into an alternating current signal;

an input portion that receives the bus voltage signal;

a resonant load portion for receiving a lamp load; and

a voltage controlled start-up portion that delays triggering of the inverter starting circuit based on a detected voltage.

2. The lamp inverter starting circuit as set forth in claim 1, wherein the switching portion includes first and second power transistors.

3. The lamp inverter starting circuit as set forth in claim 2, wherein the transistors are one of bipolar junction transistors and field effect transistors.

4. The lamp inverter starting circuit as set forth in claim 1, further including:

an input AC line voltage source ranging from 120 V to 280 V.

5. The lamp inverter starting circuit as set forth in claim 1, wherein the bus voltage ranges up to 390 V.

6. The lamp inverter starting circuit as set forth in claim 1, wherein the start-up portion includes at least one charging capacitor that collects charge prior to triggering of the inverter starting circuit.

7. The lamp inverter starting circuit as set forth in claim 6, wherein the at least one charging capacitor charges to a threshold voltage.

8. The lamp inverter starting circuit as set forth in claim 7, wherein the startup portion includes at least one diac that has a breakdown voltage that determines the threshold voltage.

9. The lamp inverter starting circuit as set forth in claim 8, wherein the at least one charging capacitor charges to the breakdown voltage prior to triggering the inverter starting circuit.

10. The lamp inverter starting circuit as set forth in claim 7, wherein the threshold voltage is 390 V.

11. A method of firing a lamp comprising:

supplying an AC line voltage;

converting the AC line voltage into a DC bus voltage

charging a capacitor with current supplied by the bus voltage

overcoming a breakdown voltage of a diac, turning the diac conductive when the charged capacitor reaches the diac breakdown voltage; and,

supplying voltage to the lamp after the diac turns conductive.

12. The method as set forth in claim 11, wherein the step of overcoming the breakdown voltage includes discharging the capacitor.

13. The method as set forth in claim 11, wherein the step of supplying the AC line voltage includes electrically connecting the lamp to an AC voltage source, the voltage source ranging from 120 V to 280 V.

14. The method as set forth in claim 11, wherein the step of overcoming the breakdown voltage includes ramping the bus voltage up to between 300 V and 500 V.

15. The method as set forth in claim 11, wherein the step of overcoming the breakdown voltage includes ramping the bus voltage up to 390 V.

16. The method as set forth in claim 11, wherein the step of supplying voltage to the lamp occurs before the bus voltage reaches a steady state.

17. A lamp inverter circuit comprising:

a switching portion that includes first and second transistors;

a resonant load portion for receiving a lamp;

a power factor correction circuit that delivers a bus voltage;

a voltage dependant start-up portion that delays firing of the inverter until the bus voltage ramps up to a pre-determined threshold.

18. The lamp inverter circuit as set forth in claim 17 further including:

an AC line voltage that ranges from 120 V to 280 V .

19. The lamp inverter circuit as set forth in claim 17, wherein the bus voltage ranges from 120 V to 280 V or more.

20. The lamp inverter circuit as set forth in claim 17, wherein the voltage dependent start-up portion allows firing of the inverter circuit before the bus voltage reaches a steady state.